

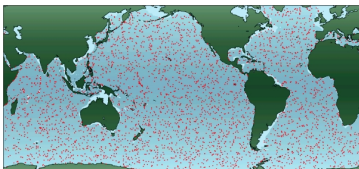
## News release

### Robotic fleet circles the earth's oceans

13 December 2004

Scientists' dream of creating a network of floating robots to observe the temperature and salinity of the oceans has now become reality.

The [international Argo Programme](#) began in 2000 with the aim of establishing a global array of 3,000 robotic instruments - known as Argo floats. The UK component of the programme is managed by the Met Office and recently the half-way point has been reached with 1,500 floats operating in the Atlantic, Indian, Pacific and Southern Oceans. The Argo Programme is a key international project endorsed by the World Meteorological Organization (WMO) and the Intergovernmental Oceanographic Commission (IOC), and the data (55,000 profiles per year) have quickly become a mainstay of climate and ocean research, and of operational weather and climate centres around the world.



Argo floats are positioned across the oceans - and drift at a depth of typically 1,000 to 2,000 metres. They rise to the surface every 10 days to record a temperature and salinity profile and transmit these data via satellite before returning to depth and starting another cycle. The floats can complete 150 cycles, and operate for three to four years. Each one, including its antenna, is around 2 m long and weighs around 30 kg.

Results have already demonstrated that Argo data give a significant improvement in the accuracy of ocean analyses and forecasts made by the Met Office using its Forecasting Ocean Assimilation Model (FOAM). For climate studies, the unprecedented spatial and temporal resolution of Argo data are already helping us to better understand the variability of the climate system, and over the coming years will improve our ability to understand contemporary climate change.

The UK's contribution to Argo is funded for the period 2001 to 2006 by the [Department for Environment, Food and Rural Affairs](#) (Defra), the [Ministry of Defence](#) (MoD) and the [Natural Environment Research Council](#) (NERC). UK Argo is undertaken by a partnership involving the Met Office (who manage the project), [National Oceanography Centre](#) (NOC), the [British Oceanographic Data Centre](#) (BODC) and the [UK Hydrographic Office](#) (UKHO).

[More about the UK Argo project](#)

#### Notes:

Currently there are two commercial float manufacturers: Webb Research Corporation and MARTEC. Since its inception in 1999, Australia, Canada, China, Denmark, France, Germany, India, Ireland, Japan, Netherlands, New Zealand, Norway, Republic of Korea, Russia, Spain, UK, USA, and the European Commission have committed support towards building the Argo array, and a number of other countries have assisted in deploying floats.

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## Argo float distribution

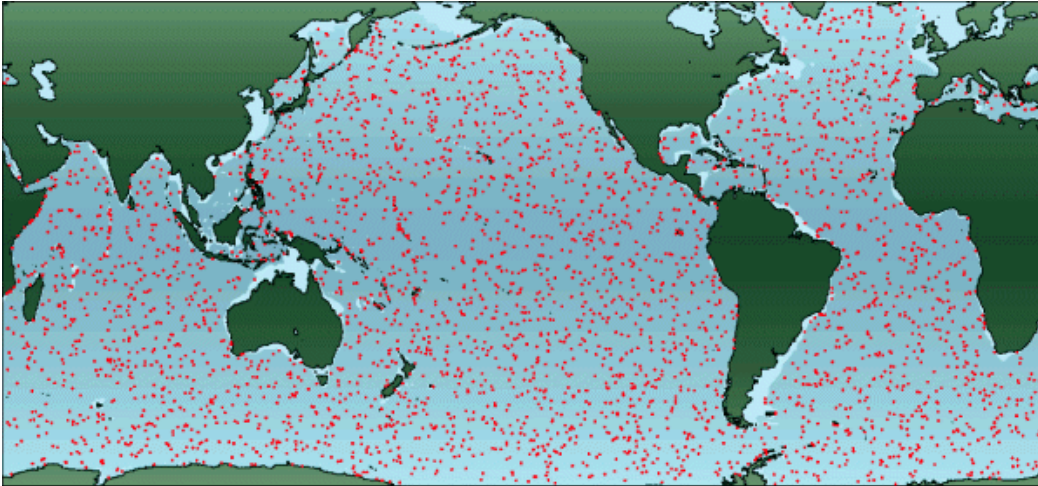
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Illustration of the projected distribution of 3,000 Argo floats.